

ABSTRACT

A microfluidic device adapted such that the flow of fluids within the device is controlled by different surfaces of the device having different surface characteristics. Preferably the device comprises a substrate not formed from a hydrated oxide material. The present invention relates to a method for presenting an analyte of a liquid sample as an MS-analyte to a mass spectrometer. More particularly, the method comprises the steps of applying a liquid sample containing the analyte to a sample inlet port of a microchannel structure of a microfluidic device, said structure also comprising an outlet port (MS-port) that is capable of being interfaced with a mass spectrometer, passing the analyte to the MS-port thereby transforming it to an MS-analyte, and presenting the MS-analyte to mass spectrometer via the MS-port.